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airways or routes. Whenever the Administrator finds it necessary to determine the width of other approved routes, he considers the following:

- (1) Terrain clearance.
- (2) Minimum en route altitudes.
- (3) Ground and airborne navigation aids.
 - (4) Air traffic density.
 - (5) ATC procedures.
- (b) Any route widths of other approved routes determined by the Administrator are specified in the certificate holder's operations specifications.

[Doc. No. 6258, 29 FR 19194, Dec. 31, 1964, as amended by Amdt. 121–253, 61 FR 2610, Jan. 26, 1996]

§121.97 Airports: Required data.

- (a) Each certificate holder conducting domestic or flag operations must show that each route it submits for approval has enough airports that are properly equipped and adequate for the proposed operation, considering such items as size, surface, obstructions, facilities, public protection, lighting, navigational and communications aids, and ATC.
- (b) Each certificate holder conducting domestic or flag operations must show that it has an approved system for obtaining, maintaining, and distributing to appropriate personnel current aeronautical data for each airport it uses to ensure a safe operation at that airport. The aeronautical data must include the following:
 - (1) Airports.
 - (i) Facilities.
 - (ii) Public protection.
- (iii) Navigational and communications aids.
- (iv) Construction affecting takeoff, landing, or ground operations.
 - (v) Air traffic facilities.
- (2) Runways, clearways and stopways.
 - (i) Dimensions.
 - (ii) Surface.
 - (iii) Marking and lighting systems.
 - (iv) Elevation and gradient.
 - (3) Displaced thresholds.
 - (i) Location.
 - (ii) Dimensions.
 - (iii) Takeoff or landing or both.
 - (4) Obstacles.

- (i) Those affecting takeoff and landing performance computations in accordance with Subpart I of this part.
 - (ii) Controlling obstacles.
 - (5) Instrument flight procedures.
 - (i) Departure procedure.
 - (ii) Approach procedure.
 - (iii) Missed approach procedure.
 - (6) Special information.
- (i) Runway visual range measurement equipment.
- (ii) Prevailing winds under low visibility conditions.
- (c) If the certificate-holding district office charged with the overall inspection of the certificate holder's operations finds that revisions are necessary for the continued adequacy of the certificate holder's system for collection, dissemination, and usage of aeronautical data that has been granted approval, the certificate holder shall, after notification by the certificate-holding district office, make those revisions in the system. Within 30 days after the certificate holder receives such notice, the certificate holder mav file a petition to reconsider the notice with the Director, Flight Standards Service. This filing of a petition to reconsider stays the notice pending a decision by the Director, Flight Standards Service. However, if the certificate-holding district office finds that there is an emergency that requires immediate action in the interest of safety in air transportation, the Director, Flight Standards Service may, upon statement of the reasons, require a change effective without stay.

[Doc. No. 6258, 29 FR 19194, Dec. 31, 1964, as amended by Amdt. 121–162, 45 FR 46738, July 10, 1980; Amdt. 121–207, 54 FR 39293, Sept. 25, 1989; Amdt. 121–253, 61 FR 2610, Jan. 26, 1996]

§ 121.99 Communication facilities.

(a) Each certificate holder conducting domestic or flag operations must show that a two-way radio communication system or other means of communication approved by the Administrator is available at points that will ensure reliable and rapid communications, under normal operating conditions over the entire route (either direct or via approved point-to-point circuits) between each airplane and the

appropriate dispatch office, and between each airplane and the appropriate air traffic control unit, except as specified as §121.351(c).

- (b) For the following types of operations, the communications systems between each airplane and the dispatch office must be independent of any system operated by the United States:
 - (1) All domestic operations;
- (2) Flag operations in the 48 contiguous States and the District of Columbia: and
- (3) After March 12, 2001, flag operations outside the 48 contiguous States and the District of Columbia.

[Doc. No. 28154, 62 FR 13256, Mar. 19, 1997]

§ 121.101 Weather reporting facilities.

- (a) Each certificate holder conducting domestic or flag operations must show that enough weather reporting services are available along each route to ensure weather reports and forecasts necessary for the operation.
- (b) Except as provided in paragraph (d) of this section, no certificate holder conducting domestic or flag operations may use any weather report to control flight unless—
- (1) For operations within the 48 contiguous States and the District of Columbia, it was prepared by the U.S. National Weather Service or a source approved by the U.S. National Weather Service; or
- (2) For operations conducted outside the 48 contiguous States and the District of Columbia, it was prepared by a source approved by the Administrator.
- (c) Each certificate holder conducting domestic or flag operations that uses forecasts to control flight movements shall use forecasts prepared from weather reports specified in paragraph (b) of this section and from any source approved under its system adopted pursuant to paragraph (d) of this section.
- (d) Each certificate holder conducting domestic or flag operations shall adopt and put into use an approved system for obtaining forecasts and reports of adverse weather phenomena, such as clear air turbulence, thunderstorms, and low altitude wind shear, that may affect safety of flight

on each route to be flown and at each airport to be used.

[Doc. No. 6258, 29 FR 19194, Dec. 31, 1964, as amended by Amdt. 121-27, 36 FR 13911, July 28, 1971; Amdt. 121-134, 42 FR 27573, May 31, 1977; Amdt. 121-253, 61 FR 2610, Jan. 26, 1996]

§ 121.103 En route navigational facilities.

- (a) Except as provided in paragraph (b) of this section, each certificate holder conducting domestic or flag operations must show, for each proposed route, that nonvisual ground aids are—
- (1) Available over the route for navigating aircraft within the degree of accuracy required for ATC; and
- (2) Located to allow navigation to any regular, provisional, refueling, or alternate airport, within the degree of accuracy necessary for the operation involved.

Except for those aids required for routes to alternate airports, nonvisual ground aids required for approval of routes outside of controlled airspace are listed in the certificate holder's operations specifications.

- (b) Nonvisual ground aids are not required for—
- (1) Day VFR operations that the certificate holder shows can be conducted safely by pilotage because of the characteristics of the terrain;
- (2) Night VFR operations on routes that the certificate holder shows have reliably lighted landmarks adequate for safe operation; and
- (3) Operations on route segments where the use of celestial or other specialized means of navigation is approved by the Administrator.

[Doc. No. 6258, 29 FR 19194, Dec. 31, 1964, as amended by Amdt. 121–253, 61 FR 2610, Jan. 26, 1996]

§ 121.105 Servicing and maintenance facilities.

Each certificate holder conducting domestic or flag operations must show that competent personnel and adequate facilities and equipment (including spare parts, supplies, and materials) are available at such points along the